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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,800	05/28/2004	Randolph J. Sheffield	68.0477	3799
35204 7590 01/16/2007 SCHLUMBERGER RESERVOIR COMPLETIONS 14910 AIRLINE ROAD ROSHARON, TX 77583			EXAMINER BOMAR, THOMAS S	
			ART UNIT 3672	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS			MAIL DATE 01/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/709,800	SHEFFIELD, RANDOLPH J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shane Bomar	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 7-14, 16, 20-27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7-14, 16, 20-27, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 4, 2006 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 7-14, 16, 20-27, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent application publication 2003/0000411 to Cernocky et al in view of US 4,648,471 to Bordon.

Regarding claims 1, 14, 16, 27, and 30, Cernocky et al disclose a method, system, and apparatus usable with a subterranean well, comprising: deploying a casing conveyed tool 18 in a subterranean well; disposing the casing conveyed tool 18 in the outer surface 12 of a casing 10 in the well so that the tool does not block the central passageway; communicating a wireless stimulus downhole in the well; actuating, or firing, the casing conveyed tool 18, which is a perforating gun, in response to the communication; and communicating another wireless

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stimulus uphole from a transmitter (antennas are known to be transmitters and receivers) that is integrated with the casing string (see Figs. 1, 2, and 5; paragraphs 0025-0027, 0038, and 0050).

Although it is taught that the wireless stimulus that is transmitted uphole is for monitoring purposes (see paragraph 0038), it is not specifically taught that the monitoring is for confirming that the perforating gun fired.

Bordon teaches a tubing conveyed perforating gun similar to that of Cernocky et al (see col. 2, lines 42-46). It is further taught that a confirmation of the firing of the perforating gun charges is transmitted uphole (see col. 5, lines 37-45). It would have been obvious to one of ordinary skill in the art, having the teachings of Cernocky et al and Bordon before him at the time the invention was made, that the monitoring taught by Cernocky et al would include the confirmation of the firing of the perforating gun of Bordon, in order to obtain a method, system, and/or apparatus that will avoid dangerous situations such as bringing armed but unfired charges to the surface (see col. 2, lines 32-35 of Bordon). One would have been motivated to make such a combination because the references address the narrow problem of firing tubing, or casing, conveyed perforating gun charges downhole, therefore, a person seeking to solve that exact problem would consult the references and apply their teachings together.

Regarding claims 7-12, 20-25, and 29, the combination applied to claims 1, 14, and 27 above teaches that the wireless signals transmitted downhole comprise at least one of an acoustic wave, an electromagnetic wave, a seismic wave, and a fluid pressure pulse, wherein acoustic and seismic waves are known to be pressure pulses and fluid will inherently be located in the well or tubing (see paragraph 0048 of Cernocky et al).

Regarding claims 13 and 26, the combination applied to claims 1 and 14 above teaches that the stimulus is encoded to indicate a command and the stimulus is decoded to extract the command (see claim 1 of Cernocky et al).

#### ***Response to Arguments***

4. Applicant's arguments, see pages 6-7, filed October 30, 2006, with respect to the rejection(s) of claim(s) 4-6, 17-19, and 31 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Cernocky et al and Bordon.

#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:00am to 2:30pm. The examiner can also be reached on alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Bagnell  
Supervisory Patent Examiner  
Art Unit 3672



tsb  
January 4, 2007